REPL

Definition:

A **REPL** stands for **Read-Eval-Print Loop**. It's an interactive programming environment that takes user input, evaluates it, and then prints the result. This process happens in a continuous loop, making it a useful tool for testing code, debugging, or experimenting with programming concepts.

In the context of **JavaScript**, a REPL allows you to:

- 1. **Read** the JavaScript code input by the user.
- 2. Evaluate that code and execute it.
- 3. **Print** the result of the evaluation to the console.
- 4. **Loop** back to the input stage for more commands.

Code:

```
let list = [];
console.log("Simple Array REPL (JavaScript)");
console.log("Commands: add <item>, remove <item>, print, exit");
function repl() {
  const command = prompt(">>").trim();

  if (command === 'exit') {
    console.log("Exiting REPL. Bye!");
    return;
} else if (command.startsWith('add ')) {
    const item = command.slice(4);
    list.push(item);
    console.log(`Added '${item}' to the list.`);
} else if (command.startsWith('remove ')) {
    const item = command.slice(7);
    const index = list.indexOf(item);
```

```
if (index !==-1) {
   list.splice(index, 1);
   console.log(`Removed '${item}' from the list.`);
   console.log(`'${item}' not found in the list.`);
 } else if (command === 'print') {
  console.log("Current list:");
  list.forEach((item, index) => {
   console.log(`${index}: ${item}`);
  });
 } else {
  console.log("Unknown command.");
 // Repeat the prompt
 repl();
}
// Start the REPL loop
repl();
```

Output:

```
VM79:3 Simple Array REPL (JavaScript)
VM79:4 Commands: add <item>, remove <item>, print, exit
VM79:31 Unknown command.
VM79:15 Added '1' to the list.
VM79:31 Unknown command.
VM79:23 '3' not found in the list.
VM79:26 Current list:
```



